Championing antimicrobial resistance social science research

Professor Helen Lambert, Professor of Medical Anthropology from the University of Bristol, discusses the value of social science research evidence for developing effective strategies to tackle antimicrobial resistance effectively.

Why is antimicrobial resistance (AMR) such an important topic to address?

AMR was identified by microbiologists and infectious disease experts as a potential problem for human health around the same time as antibiotics were discovered, but the scale of the problem of drug resistance and its potential for adversely affecting not only human health and wellbeing but also food production and economic development has only recently become clear. High levels of antibiotic resistance have now been identified in many settings and populations and matters are only going to become worse over time, especially as no new classes of antibiotics have been developed in the past 20 years. AMR is a human problem as much as a microbiological one; its determinants and consequences are socially patterned and social science is as important as laboratory research in learning how to tackle it effectively.

What are the main obstacles facing social science researchers’ ability to generate research that is directly relevant to clinical, diagnostic and population health?

At first glance, something as technical sounding as ‘antimicrobial resistance’ does not sound like the sort of problem that social scientists either would have relevant expertise in, or would have much interest in researching! This needs to be overcome by unpacking what AMR is all about and explaining how, for example, a sociologist who works on organisational culture or a political scientist with expertise in global governance has knowledge and understanding that could be highly relevant for researching AMR. Generating research that is relevant to this global health issue also requires working closely with colleagues in diverse fields to acquire at least a basic understanding of the current state of knowledge within these fields and how problems are conceptualised.

What is the impact of the Economic and Social Research Council (ESRC) AMR Research Champion and how does it contribute to research excellence?

In 2015, recognising the complexity of AMR and the need for a cross-disciplinary approach to AMR-related research, the UK Research Councils (UKRC) decided to launch a unique cross-council funding initiative across all seven research councils. The ESRC, which funds social science research, recognised that social scientists would not necessarily respond to funding calls on AMR, since it was mainly seen as a medical issue. To increase the likelihood of receiving high-quality research proposals they created the ESRC AMR Research Champion award to engage social scientists. Since being awarded this grant and with a small team, I have run workshops, developed a website, blog and database and advocated social science at numerous meetings. The initiative has built a community of social scientists with interests in AMR, facilitated interdisciplinary networking and highlighted the need for medical and life scientists to work with social scientists.

You have developed a database of social scientists conducting or interested in conducting AMR research. How useful is this to bridging the gap between social and non-social science subjects on AMR?

This was a core task assigned to me by ESRC as AMR Research Champion. The ESRC sees this database as a valuable resource enabling them to identify potential applicants and peer reviewers for funding calls on AMR across the disciplines. Over 300 people registered on our database and we have used it to create cross-disciplinary attendance at our events and disseminate news about funding calls and other activities. As research funders move increasingly towards requiring interdisciplinary proposals, particularly with regard to global challenges, it is important to be able to identify social and non-social science researchers who want to work together.
Overcoming obstacles to social science research in AMR

The ESRC AMR Research Champion Initiative has successfully been improving understanding of antimicrobial resistance through interdisciplinary social science research.

Professor Helen Lambert, Professor of Medical Anthropology, is Economic and Social Research Council (ESRC) AMR Research Champion from the University of Bristol. She is keen to highlight current barriers to developing a wider understanding of the relevance of social science to antimicrobial resistance (AMR): ‘There are several key obstacles. One is getting non-social scientists to recognise the contribution that social science perspectives can make to understanding AMR.’

In her role as AMR Champion, she has found that ‘a common misconception among scientists is that social science researchers only work on individual level behaviour, so they think psychology is the only social science discipline that is useful for tackling AMR’. To overcome this ‘social scientists often need to work hard at translating and presenting their own concepts, language and theories in ways that those without a social science background can easily understand,’ observes Lambert. This helps scientists to appreciate the specific perspectives and methods that different social sciences bring and involve them in research design at an early stage.

Lambert recognises that language can be a barrier between researchers in different areas. She adds: ‘Actually, I think anthropologists are especially well qualified to act as translators between different disciplines as their disciplinary orientation involves learning not to take what others say for granted but to interpret what they really mean.’ From her experience, Lambert suggests that ‘often the best way to overcome miscommunication is simply to point out that others may not be familiar with their scientific language and ask them to explain in simpler terms’.

Addressing institutional barriers to cross-disciplinary research and publishing is also important. Lambert notes that early career researchers in her own discipline of anthropology who have followed the traditional route of publishing a single-author monograph based on their PhD and then procured further funding for a solo anthropological research project are currently more likely to be considered for lectureships than those who have secured a postdoctoral position in a health faculty, undertaken cross-disciplinary applied research or published multi-authored articles in journals outside anthropology. She says that supporting interdisciplinary research requires a sea change within academia more generally, as there are fundamental implications for recruitment, promotion, funding and academic publishing which need addressing by universities, funders and publishers. ‘I firmly believe that engagement across disciplines, such as between social sciences and microbiology or epidemiology, can result in work that is both directly relevant and intellectually satisfying for social scientists.’

Key to this project is promotion of collaboration through advocacy, and Lambert reports that ‘government bodies tend to have established avenues of communication with certain types of expert and often rely informally on advisory input from specific individuals’. She comments that whilst ‘this is an important step; engagement with this relatively new field relies on a small number of individuals who are mostly research active in the field of health psychology. The downside is that by default, this excludes other social science fields such as medical sociology, medical anthropology and social geography that may have important insights to contribute to public health beyond individual behavioural change.’

Lambert suggests that the role of the AMR champion is in part ‘to encourage other advocates who can reach the ears of government and public-sector agencies’. The project itself has generated a range of workshops and communications between key stakeholders as well as engagement with early career researchers. In the UK a Parliamentary Advisory Group has formed around AMR and contacting them with succinct information about a project is a good way for researchers to become known to MPs and civil servants.

MEASURING ENGAGEMENT SUCCESS
Evidence from the current project identifies that information recorded in the project
All this support has been enormously helpful in spreading the core messages about the crucial role of social science in AMR research.